



OIPE

RECEIVED

JUL 11 2002

TECH CENTER 1600/2900

## RAW SEQUENCE LISTING

DATE: 05/31/2002

PATENT APPLICATION: US/09/746,311A

TIME: 09:14:27

Input Set : A:\PTO.PG.txt

Output Set: N:\CRF3\05312002\I746311A.raw

3 <110> APPLICANT: Suciu-Foca, Nicole  
 4 Liu, Zhuoro  
 5 Chang, Chih-Chao  
 6 Cortesini, Raffaello  
 8 <120> TITLE OF INVENTION: Generation of Antigen-Specific T Suppressor Cells For  
 Treatment of  
 9 Rejection  
 11 <130> FILE REFERENCE: 0575/58332-B  
 13 <140> CURRENT APPLICATION NUMBER: 09/746,311A  
 14 <141> CURRENT FILING DATE: 2000-12-21  
 16 <150> PRIOR APPLICATION NUMBER: PCT/US00/16594  
 17 <151> PRIOR FILING DATE: 2000-06-15  
 19 <160> NUMBER OF SEQ ID NOS: 381  
 21 <170> SOFTWARE: PatentIn version 3.1  
 23 <210> SEQ ID NO: 1  
 24 <211> LENGTH: 266  
 25 <212> TYPE: PRT  
 26 <213> ORGANISM: Human HLA-DRB  
 28 <400> SEQUENCE: 1  
 30 Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr  
 31 1 5 10 15  
 34 Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
 35 20 25 30  
 38 Arg Pro Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn  
 39 35 40 45  
 42 Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu  
 43 50 55 60  
 46 Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
 47 65 70 75 80  
 50 Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu  
 51 85 90 95  
 54 Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
 55 100 105 110  
 58 Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu Pro Lys Val  
 59 115 120 125  
 62 Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 63 130 135 140  
 66 Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 67 145 150 155 160  
 70 Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu  
 71 165 170 175  
 74 Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
 75 180 185 190  
 78 Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser

ENTERED

## RAW SEQUENCE LISTING

DATE: 05/31/2002

PATENT APPLICATION: US/09/746,311A

TIME: 09:14:27

Input 'Set : A:\PTO.PG.txt

Output Set: N:\CRF3\05312002\I746311A.raw

```

79          195          200          205
82 Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
83      210          215          220
86 Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
87 225          230          235          240
90 Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
91          245          250          255
94 Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
95      260          265
98 <210> SEQ ID NO: 2
99 <211> LENGTH: 237
100 <212> TYPE: PRT
101 <213> ORGANISM: Human HLA-DRB
103 <400> SEQUENCE: 2
105 Gly Asp Thr Arg Pro Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His
106 1          5          10          15
109 Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr
110          20          25          30
113 Asn Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
114          35          40          45
117 Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
118      50          55          60
121 Lys Asp Leu Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg
122 65          70          75          80
125 His Asn Tyr Gly Ala Val Glu Ser Phe Thr Val Gln Arg Arg Val Glu
126          85          90          95
129 Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
130          100          105          110
133 Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
134          115          120          125
137 Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser
138      130          135          140
141 Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
142 145          150          155          160
145 Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
146          165          170          175
149 His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
150          180          185          190
153 Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
154          195          200          205
157 Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
158      210          215          220
161 Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
162 225          230          235
165 <210> SEQ ID NO: 3
166 <211> LENGTH: 81
167 <212> TYPE: PRT
168 <213> ORGANISM: Human HLA-DRB
170 <400> SEQUENCE: 3

```

## RAW SEQUENCE LISTING

DATE: 05/31/2002

PATENT APPLICATION: US/09/746,311A

TIME: 09:14:27

Input Set : A:\PTO.PG.txt

Output Set: N:\CRF3\05312002\I746311A.raw

```

172 Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr
173 1 5 10 15
176 Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Ser
177 20 25 30
180 Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
181 35 40 45
184 Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
185 50 55 60
188 Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
189 65 70 75 80
192 Val
196 <210> SEQ ID NO: 4
197 <211> LENGTH: 266
198 <212> TYPE: PRT
199 <213> ORGANISM: Human HLA-DRB
201 <400> SEQUENCE: 4
203 Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr
204 1 5 10 15
207 Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
208 20 25 30
211 Arg Pro Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn
212 35 40 45
215 Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu
216 50 55 60
219 Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
220 65 70 75 80
223 Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile
224 85 90 95
227 Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
228 100 105 110
231 Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu Pro Lys Val
232 115 120 125
235 Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
236 130 135 140
239 Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
240 145 150 155 160
243 Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu
244 165 170 175
247 Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
248 180 185 190
251 Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
252 195 200 205
255 Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
256 210 215 220
259 Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
260 225 230 235 240
263 Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
264 245 250 255
267 Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser

```

## RAW SEQUENCE LISTING

DATE: 05/31/2002

PATENT APPLICATION: US/09/746,311A

TIME: 09:14:27

Input Set : A:\PTO.PG.txt

Output Set: N:\CRF3\05312002\I746311A.raw

```

268          260          265
271 <210> SEQ ID NO: 5
272 <211> LENGTH: 225
273 <212> TYPE: PRT
274 <213> ORGANISM: Human HLA-DRB
276 <400> SEQUENCE: 5
278 Gly Asp Thr Arg Pro Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His
279 1          5          10          15
282 Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr
283          20          25          30
286 Asn Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
287          35          40          45
290 Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
291          50          55          60
294 Lys Asp Leu Leu Glu Gln Arg Arg Ala Ala Val Asp Asn Tyr Cys Arg
295 65          70          75          80
298 His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Glu
299          85          90          95
302 Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
303          100         105         110
306 Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
307          115         120         125
310 Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser
311          130         135         140
314 Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
315 145          150         155         160
318 Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
319          165         170         175
322 His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
323          180         185         190
326 Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
327          195         200         205
330 Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
331          210         215         220
334 Lys
335 225
338 <210> SEQ ID NO: 6
339 <211> LENGTH: 89
340 <212> TYPE: PRT
341 <213> ORGANISM: Human HLA-DRB
343 <400> SEQUENCE: 6
345 Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr
346 1          5          10          15
349 Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Ser
350          20          25          30
353 Val Arg Phe Asp Ser Asp Val Arg Glu Tyr Arg Ala Val Thr Glu Leu
354          35          40          45
357 Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
358          50          55          60

```

## RAW SEQUENCE LISTING

DATE: 05/31/2002

PATENT APPLICATION: US/09/746,311A

TIME: 09:14:27

Input Set : A:\PTO.PG.txt

Output Set: N:\CRF3\05312002\I746311A.raw

```

361 Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
362 65                      70                      75                      80
365 Gly Glu Ser Phe Thr Val Gln Arg Arg
366                      85
369 <210> SEQ ID NO: 7
370 <211> LENGTH: 89
371 <212> TYPE: PRT
372 <213> ORGANISM: Human HLA-DRB
374 <400> SEQUENCE: 7
376 Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr
377 1                      5                      10                      15
380 Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Ser
381                      20                      25                      30
384 Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
385                      35                      40                      45
388 Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
389                      50                      55                      60
392 Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
393 65                      70                      75                      80
396 Val Glu Ser Phe Thr Val Gln Arg Arg
397                      85
400 <210> SEQ ID NO: 8
401 <211> LENGTH: 89
402 <212> TYPE: PRT
403 <213> ORGANISM: Human HLA-DRB
405 <400> SEQUENCE: 8
407 Arg Phe Leu Trp Glu Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr
408 1                      5                      10                      15
411 Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Ser
412                      20                      25                      30
415 Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
416                      35                      40                      45
419 Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
420                      50                      55                      60
423 Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
424 65                      70                      75                      80
427 Gly Glu Ser Phe Thr Val Gln Arg Arg
428                      85
431 <210> SEQ ID NO: 9
432 <211> LENGTH: 89
433 <212> TYPE: PRT
434 <213> ORGANISM: Human HLA-DRB
436 <400> SEQUENCE: 9
438 Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr
439 1                      5                      10                      15
442 Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Tyr
443                      20                      25                      30
446 Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
447                      35                      40                      45

```

RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 05/31/2002  
PATENT APPLICATION: US/09/746,311A      TIME: 09:14:28

Input Set : A:\PTO.PG.txt  
Output Set: N:\CRF3\05312002\I746311A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:333; Xaa Pos. 38  
Seq#:342; Xaa Pos. 167  
Seq#:344; Xaa Pos. 81